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NEWS ITEMS

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THE MEN AND THE MACHINES
1913 — 1915

A Chronological Treatise on the Growth of Air Power

(Editor's Note: The factual data was taken from the monogram entitled "History of the U. S. Army Air Arm, 1861—6 April 1917," prepared by Mrs. Juliette A. Hennessey, and which is the official property of the Historical Division of the Research Studies Institute, Maxwell AFB, Ala. Many details and especially figures have been necessarily omitted in this history because of space requirements. Questions concerning particular incidents not covered by this article will be welcomed.)

PART I

As evidenced by historical items in previous issues of "The Air Power Historian" the establishment of the concept of the airplane as a new and revolutionary weapons system was slow indeed. To many of the early believers in aviation as Air Power it must have been frustratingly slow.

It is true that even in the very beginning, following the Wright Brothers' invention, there were a few outstanding visionaries, among them, H. G. Wells, Dr. Alexander Graham Bell and Prime Minister Jan Christian Smuts, who foresaw the tremendous potentialities of the airplane. Later on came such staunch advocates of Air Power as Guilio Douhet and Count Caproni of Italy. Still later we had our own disciples in Captain Paul W. Beck and in General Billy Mitchell. All were voices in a minority; they were considered by the more practical military men of the day as hopeless visionaries and daydreamers. The opinions of such as these could not be held in very high esteem by the conservative military mind.

Although the airplane was invented in America, it may be considered ironical that the United States was one of the slowest nations on the earth to really accept it. As a matter of fact, by the time of entry of the U. S. into World War I in 1917, the United States ranked seventh in strength as an airpower. France, England, Italy and even Russia outranked us in this category.

In spite of the proven capabilities of the airplane as a weapons system during World War I, crude though the systems and procedures may have been, and in spite of the proven potentialities of the airplane as a bomber in the strategic concept following WWI, it was not until World War II was well under way that the airplane actually came into its own.

Perhaps the slow growth of Air Power may be attributed to human nature and to the fact that the military mind has always been geared to tradition and is reluctant to change. For instance, the Cavalry was actually outmoded when the first good repeater rifle was invented and was doomed when the Gattling gun of 1862 became a military weapon. Yet, the Cavalry was considered a vital part of the military structure until just prior to WWII, when it had to be supplanted by tanks.

The pattern for conservation was followed by Congress, as evidenced by the scant attention paid to aviation prior to 1913. In March of 1911 Congress allocated the first specific appropriation for Army Aeronautics in the amount of $125,000 for the following fiscal year; for the next year Congress allotted $100,000 for aeronautics.

Congress passed little air legislation and promoted very little interest in aviation. However in December of 1912 President Taft appointed a commission to report to Congress on a National Aerodynamic Laboratory. After three meetings the commission recommended the establishment of such a laboratory patterned after the one in Great Britain and to come under the Smithsonian Institute in Washington, D. C. Then in January 1913 the Senate passed a bill authorizing the establishment of a National Aerodynamic Laboratory and on 9 May 1913 President Woodrow Wilson approved 12 advisory members. After much studying and investigation on the part of this committee, legal technicalities prevented the actual formation of the laboratory. It was not until about two years later on 3 March 1915 that President Wilson was authorized by the Congress to appoint the National Advisory Committee for Aeronautics.

REPRESENTATIVE HAY AS AN AIR ADVOCATE

Representative John Hay of Virginia became an advocate of legislation to promote a better Air Service early in 1913. (A personable and colorful account of events prompting this interest has already been presented by Maj. General Benjamin D. Foulois, USAF (Ret.) in previous issues of "The Air Power Historian." In some instances there will be some overlapping of details with Gen. Foulois' biography.) Representative Hay tried early that year to separate the Air Service and to give it greater stature and importance. The War Department did not favor the bill as introduced by Representative Hay. Many of the officers felt at that time that the air arm had not developed sufficiently to be placed in the Army line as a separate unit. Others objected because it made no provisions for certain Captains and Lieutenants already on active duty. These objections to a separate corps were upheld by the officers of the Air Service. In the face of such opposition from the officers most closely associated with aviation, the bill was abandoned by the Military Affairs Committee. This was one of a series of frustrating attempts through the years to make the air service a separate and distinct unit with its own command structure. It must be pointed out that Captain Paul W. Beck, later killed in a military accident, was one of the very few staunch advocates for a separate service.

On 16 May 1913, Representative Hay again introduced an air resolution, which became known as H. R. 5304. In many respects it was identical to his previous proposal. But again there was opposition from within the corps of officers to separate the Air Service and again Capt. Beck was just about the only supporter of the bill. Capt. Beck wanted aviation removed from the Signal Corps because he felt that if it remained under the Signal Corps it would probably never achieve any size or importance; further he believed that the longer the Signal Corps had control of aviation the more difficult it would be to break away in later years. But as of this time, even the few staunch advocates for a separate air arm did not contemplate the airplane as a powerful war weapon of the future; apparently the main issue was the growth of the service rather than its importance to the Army, and to the country in particular.

H. R. 5304 was passed by the Congress on 18 July 1913 and was the most important measure yet approved on air legislation. It authorized the Aviation Section under the Signal Corps and provided many of the benefits which had been advocated. (Details of the qualities of the Bill were outlined by Gen. Foulois in his article which appeared in the April 1956 issue.)

Then finally, this same Congress appropriated for the Fiscal Year 1914 $250,000, or twice as much as had heretofore been granted.

THE MEN—1913, 1914

With the termination of 1913 official historical records indicate that there were 20 officers on duty at the Signal Corps Aviation School in San Diego. This was the only official school in existence for many years during those periods of early growth of military aviation. These 20 were:

1st Lt. T. F. Dodd, CAC
1st Lt. B. D. Foulois, Inf.
1st Lt. Harold Geiger, CAC
1st Lt. L. E. Goodier, Jr., CAC
1st Lt. R. C. Kirtland, Inf.
1st Lt. H. LeR. Muller, Cav.
1st Lt. W. C. F. Nicholson, Cav.
2nd Lt. J. E. Carberry, Inf.
2nd Lt. C. G. Chapman, Cav.
2nd Lt. V. E. Clark, CAC
2nd Lt. H. A. Dargue, CAC
2nd Lt. J. P. Edgerley, Inf.
2nd Lt. B. Q. Jones, Cav.
2nd Lt. T. D. Milling, Cav.
2nd Lt. J. C. Morrow, Inf.
2nd Lt. D. B. Netherwood, CAC
2nd Lt. H. B. Post, Inf.
2nd Lt. Fred Seydel, CAC
2nd Lt. W. R. Taliaferro, Inf.
2nd Lt. R. H. Willis, Jr., Inf.

By early February, 1914 only 18 officers were on active duty with the Aviation Section of the Signal Corps. Prior to this date 18 other officers had been relieved from duty with the Aviation Section and 12 others had been killed. This meant that for a period of from 1909 when the first flying machine was purchased by the Army until 1914 only 48 officers had been detailed to flying duties, or assigned to duties involved with flying.

A short tribute is hereby paid to the 12 officers who had been killed up until this date:

1st Lt. Thomas E. Selfridge
2nd Lt. G. E. M. Kelly
2nd Lt. L. W. Hazelhurst
2nd Lt. L. G. Rockwell
1st Lt. Rex Chandler
1st Lt. Joseph D. Park
1st Lt. Loren H. Call
1st Lt. Moss L. Love
2nd Lt. Perry C. Rich
2nd Lt. E. L. Ellington
1st Lt. Hugh M. Kelly
2nd Lt. Henry B. Post

Lt. Post was killed on 9 February 1914 in a Wright model "C" when he crashed into San Diego Bay. He had just reached a height of 12,140 feet for a new altitude record and which was about 500 feet higher than Lincoln Beachey's official altitude

record. The accident investigators reported that from that altitude Lt. Post descended to approximately 1000 feet without incident, and from about 1000 feet to 600 feet at an increasingly steeper angle. At about that altitude the plane assumed a vertical nose-down position and crashed into the Bay.

This incident is recorded here because it was one of several which gave the "C" model quite a bit of notoriety and one of the concluding incidents which helped to condemn that particular airplane. The government had originally purchased six "C" models and five of them killed six men. The sixth one was destroyed in Manila Bay, when Lt. Frank P. Lahm had attempted a water takeoff and nose-dived into the Bay after he had attained a height of about 50 feet. Also this was the same model which nearly killed Lt. H. H. Arnold at Fort Riley, Kansas in 1912.

All of the accidents in which the "C" models were involved had a common characteristic — the nosing over of the airplane as it picked up speed. An investigating board after the Post accident concluded that the elevator of the "C" was too weak and as the speed of the airplane increased, so did the angle of dive. This caused the airplane to nose over, and apparently the effect could not always be overcome by the pilots.

The actions of this investigation board were historic in another way. This board officially recommended that all future airplanes purchased by the Army be of the tractor type; this in effect, sounded the official death knell of the pusher-type airplane and which was not to be used again successfully until the B-36 of the mid-forties.

In the early days of the Aviation Section all the personnel assigned to aviation duties came from other line units of the Army such as the Infantry or the Cavalry. This was true also of the enlisted personnel who were assigned to the Aviation Section as a result of indicated desires or because of some mechanical aptitudes or abilities. Some of the enlisted men even learned to fly the airplanes, although there were no specific provisions in regulations authorizing such flying; but then, neither were there provisions prohibiting it. By 1914 some 14 enlisted men had learned to fly, including Sgt. Vernon L. Burge who was the first enlisted man taught to fly — by Lt. Lahm in the Philippines.

THE MACHINES—1913, 1914

The competition in the airplane building industry accelerated slowly, keeping pace only with the development of aviation interests in the military. For a long time only the Wrights built successful airplanes, although there were many inventors who announced and claimed that they had invented the machine which solved all the problems of flying. Gradually, however, other companies did produce successful flying machines, among the most notable of whom were the Burgess Company and the Curtiss Company. Being younger and more energetic than the older Wright Company both researched new ideas. As a result, both were soon producing the tractor-type airplane which quickly outmoded the pushers, still being built by the Wrights.

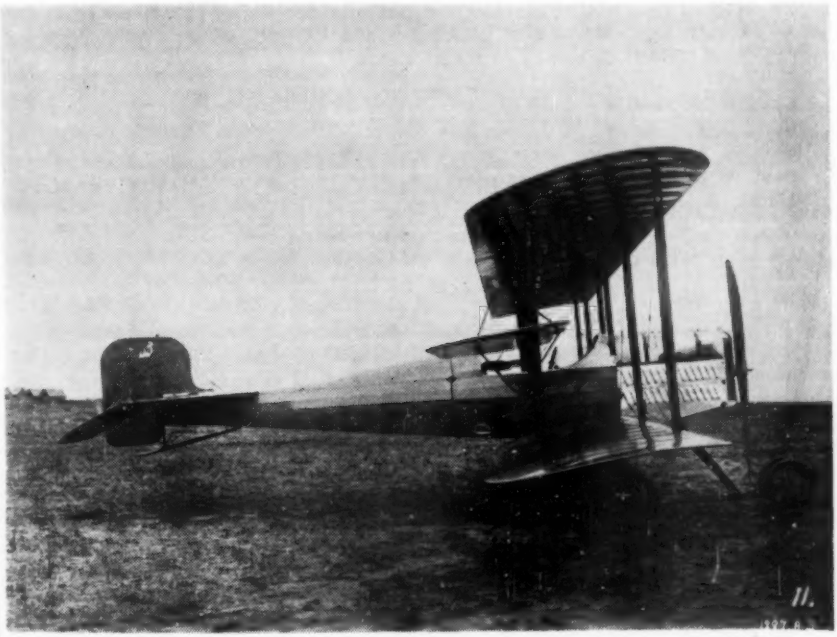
However, while the tractors developed greater inherent stability, the engine up front greatly reduced visibility, and for a while this was considered detrimental especially since the airplane was to be used for reconnaissance. Further, the tractor engine was required to produce greater horsepower in order to achieve a satisfactory range of speed.

At the Signal Corps Aviation School most of the airplanes being used for training purposes were of the Wright pusher models. Curtiss established an operating section

on the south end of the field at North Island and conducted an energetic campaign of instruction for and assistance to the Army school. Gradually there developed intense rivalry between the factions of instructors who tried to promote the Wright system and those who tried to promote the Curtiss system. This competition became so intense that school officials considered it detrimental to the good efficiency of the school and combined the two sections. In order that the government be under no obligation to Curtiss, all the Army airplanes were removed to the north end of the field and all instruction under Curtiss stopped.

As we have seen, however, in a very short time, the tractor airplane gained great preference over the pushers.

Glenn Martin, who learned to fly in 1908 and who was an exhibition flyer and designer-builder of airplanes became a producer in 1914. His products were given favorable encouragement by the Inspector General of the Army for flying units. In 1911 Martin established his first factory at Santa Ana; his company later merged with the Wrights to form the Wright-Martin Aircraft Corporation in 1917. In 1918, Martin dissolved this partnership and again established his own aircraft plant which has been producing airplanes for the government ever since.



Martin "T" tractor introduced in July of 1914 and used by the Army, with various improvements, for a long while thereafter.

On July 2nd, 1914, the first of a series of Martin "T" tractors was bought through local purchase; this plane featured the new Martin landing gear and shock absorbers. The instruments consisted of a gasoline gauge, an air gauge, an oil gauge, an electric tachometer and a thermometer. The plane cost the government $4,800 without the

engine. (Contrast this with the cost of one B-52 today.) The Army put on a Curtiss 100 horsepower engine.

Curtiss began delivering the famous "J" models on 15 September 1914. This was the forerunner of the famous "Jennie" series. Capt. Mulier used this first Curtiss plane to establish a new altitude record of 16,798 feet; later Lt. B. Q. Jones used it to develop acrobatic techniques. In it, Jones executed the first deliberate stalls and stalled loops. It was in this same airplane, about one year later, that Lt. Taliaferro was killed while performing acrobatics.

Burgess-Dunn was another manufacturer supplying the government with airplanes and in December 1914 delivered an armored tractor airplane which cost $6,025. It was on this airplane that experiments were conducted with the Benet-Mercier machine gun. (Incidentally, the gun alone weighed 1,700 lbs.) The plane was equipped with a powerful 120 hp Salmson engine.

ACTIVITIES OF THE FLYING SCHOOL AT NORTH ISLAND, SAN DIEGO

The original personnel of the Aviation Section of the Signal Corps created by the Act of 18 July 1914 consisted of 19 officers and 101 enlisted men. The following were the first officers to be put on flying status:

Capt. B. D. Foulois
Capt. L. E. Goodier
Capt. H. LeR. Muller
Capt. T. F. Dodd
1st Lt. W. R. Taliaferro
1st Lt. T. DeW. Milling
1st Lt. Carleton G. Chapman
1st Lt. Joseph C. Morrow
1st Lt. Joseph E. Carberry

All were rated as Junior Military Aviators on 23 July 1914, according to the provisions of the law.

It might be interesting to note, in general, the mission of the Aviation Section as outlined for us at that time. The mission of the Aviation Section was the operation of, or the supervision of operation of all military aircraft, including balloons, and airplanes, all appliances thereon, and for the training of officers and enlisted men in military aviation.

On 17 Sept. 1914 the Army paid the first official flying visit to the Navy when the commander of the School at North Island, Capt. Cowan, together with a civilian instructor, Mr. Francis Wildman, landed a flying boat in San Diego Harbor alongside the USS San Diego and was hoisted aboard. After the official formalities, Capt. Cowan and Wildman took off from the water, circled the San Diego several times and then returned to the landing field.

Prior to the establishment of the altitude record in Sept., 1914, Capt. LeR. Muller had conducted several test flights to determine the best climb angles and speeds, as well as the rates of consumption of fuel and oil. The flight to 16,798 feet required 2 hours and 27 minutes. The airplane was equipped with a tachometer,

gravity needle oil gauge, clock, aneroid barometer and a large registering barograph. Between 12,500 feet and 13,000 feet Muller reported that the engine suddenly lost about 50 revolutions per minute, but that he was able to compensate for the loss by adjusting the mixture needle of the carburetor. Between 14,000 and 15,000 feet he encountered violent turbulence which forced him to hold the airplane level on several occasions, and even to nose down to prevent from stalling. At about 16,000 feet he reported that he had a suggestion of nausea, which wore off, and then finally he experienced a feeling of exhiliration just at the peak of his climb. (No oxygen was used in those days.)

On 5 November 1914 occurred what is officially believed to be the first tail spin. Glenn L. Martin was demonstrating a new tractor to the Army, with Capt. Goodier as passenger. Martin was trying slow speeds when at the end of a mile straightway, he turned too slowly and stalled. The airplane hit the ground on one wing and folded up like an accordion. Goodier, who was in the front seat, was thrown forward with such force that his nose was almost severed on the aluminum cowling and an old skull fracture was re-opened. The engine telescoped back and broke both his legs. The fuel tank broke loose, flooded him with gasoline, and the engine shaft bored a hole through his right knee. Martin, in the meantime, received only a scalp wound, for as he slid forward through the thin wall between the cockpits, Goodier served as a bumper to soften the blow.

Goodier was sent to Letterman General Hospital in San Francisco; was relieved from active duty in 1916, but was recalled a short time later.

During the summer of 1914, at the Aviation School, many experiments and tests were conducted by the pilots and men of the school with armaments and ordnance of various kinds, including bombs, artillery shells, grenades, bomb sights and dropping mechanisms. As a result of some of these tests Capt. Muller and others urged the development and purchase of special bombing devices after proving the practicability and accuracy of dropping live bombs from an airplane.

General George Scriven, head of the Signal Corps, did not agree with his ambitious young officers, however, and no bomb sights were purchased. He held the view that the airplane was to be used primarily for reconnaissance work.

On 25 Nov. 1914 Brig. Gen. William Crozier of the Ordnance Department suggested to the Chief of Staff that the Signal Corps consider mounting machine guns on airplanes for offensive use and offered his help to design mounts. The Army at the time was using two types of guns; an automatic 30 cal. 1909 machine rifle which was air-cooled and weighed 29 pounds, and a recently adopted Vickers water-cooled gun weighing 36 pounds. One each of these was used for tests at San Diego.

In Dec of 1914 the Signal Corps attempted to enter 6 airplanes and 12 pilots in the Mackay Trophy Contest scheduled for Los Angeles on 21 Dec. Only two of the six planes managed to reach Los Angeles from San Diego. One of the planes was forced down into the Pacific Ocean; the others made forced landings because of engine or fuel failures. Only one officer was killed, however.

The contest was actually held on Dec. 23 and of the two Army airplanes only one was able to finish the requirements of the contest and won the coveted trophy. This was a Burgess tractor flown by Capt. Dodd and Lt. Fitzgerald.

WORLD WAR I, SUMMER OF 1914

Meanwhile, World War I had broken out in Europe during the Summer of 1914. Unprecedented attention was given to the airplane as a weapon. At the outbreak of the war the British had approximately 48 airplanes; the French had 136 and the Belgians had 24, while the Germans had a total of 180.

General Scriven took advantage of an opportunity to appear before the first Congressional hearing held after the outbreak of the war in Europe to plug for a larger aviation budget. He pointed out that the year before Germany had appropriated $45,000,000; Russia, $22,500,000; France, $12,800,000; Austria, $3,000,000; Great Britain, $1,080,000; Italy, $800,000 and the United States, $250,000. (On 4 March 1915, Congress appropriated $300,000.)

When it was seriously accepted by the nations waging war in Europe that the airplane did greatly aid the armies in battle, the frantic race to develop the air forces began. Thousands of planes were hastily built in Europe and orders were issued to manufacturers in America.

The first bombing from airplanes took place in August 1914, not long after the start of hostilities. Bombs and hand grenades were dropped manually from planes without benefit of bomb sights or accurate dropping devices. In August, German planes bombed Paris, and this event probably marked the first time that the airplane was used against civilian targets as contrasted against strictly military targets. The German Zeppelins did not begin bombing London until March and April of 1915, although they appeared over the city as early as Jan. 1915. The Zeppelins were not too successful. It is difficult to imagine an easier target to shoot down!

The action of the airplane in combat in European skies followed a natural development and evolution. At first, the planes were used almost solely and primarily for reconnaissance in conjunction with ground forces action. Within a very short time the airplane was being used for strategical reconnaissance purposes as well. Out of this action developed the necessity to prevent enemy planes from using their planes for reconnaissance of the friendly forces. This led to the development of the "protector" airplane, which more or less escorted the reconnaissance planes.

Airplanes then had to be developed to destroy the "protector" in retaliation, and still others had to be developed to fight those fighting the protectors. This was the evolution of the fighter plane.

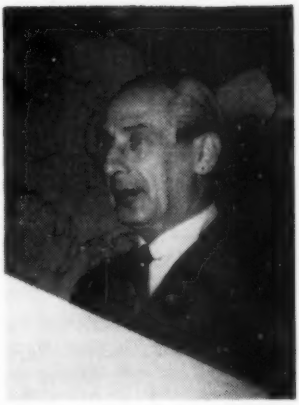
Consequently, shortly after the outbreak of hostilities in Europe, the airplane fell into three categories, which became the forerunners of our different categories of combat planes. The reconnaissance plane was usually a tractor of about 150-200 hp and carried fuel for about 7 hours flying. The speed varied around 90 mph. The second type plane was the protector or combat plane and was generally a pusher with horsepowers up to 500. It was a heavy plane and usually carried two or three light machine guns and one heavy rapid-fire gun. In general, it was clumsy and slow. It was used to carry bombs too, as was the reconnaissance plane. The third type was the fighter. This pursuit plane was always a tractor, light, fast and very maneuverable and manned by one skilled pilot.

* * * * * * *

REMEMBER BILLY MITCHELL!

by

Major Alexander P. de Seversky



Maj. Alexander P. de Seversky

The life of Billy Mitchell continues to be a subject of unabated interest to the American people and, indeed, to civic-minded people everywhere. Many books and articles have been written about him, and recently his court-martial was dramatized for both motion picture and television audiences. His work, his air thesis and theories, and their impact on our national defense thinking have been analyzed and scrutinized by experts and laymen alike.

Though most of his concepts have been fully vindicated by the events of World War II, I cannot help feeling that in spite of everything that has been written about this great man, his enormous contribution to our military security has yet to be fully understood and appreciated. It will probably take several more decades, and a new crop of historians who did not participate personally, or at least emotionally, in the Mitchell controversy, properly to evaluate his work and present the man to posterity in the true light. It is therefore up to those of us who had the good fortune to work closely with General Mitchell to record our experiences for the benefit of such chroniclers.

I first met General Mitchell, informally, in 1919, right after the War, at several social and military functions. We were friends from the start. We spoke the same airman's language and were eager to compare our experiences. He, as Chief of the A.E.F. Air Service, had fought the Germans on the Western Front, while I had fought them on the Eastern Front, as Chief of the Russian Fighter Force of the Baltic Sea. Although we had engaged the same enemy, we did so under entirely different conditions; and it was with satisfaction that General Mitchell noted that my experiences further confirmed his own conclusions regarding air strategy and tactics.

Not until 1921, however, when General Mitchell received Congressional approval to run the airplane-versus-battleship tests, did I have an opportunity to be associated with him in his endeavor. At about that time I became friendly with another great man in American military aviation, Major Horace Hickam, then Director of the Information Section of the Air Services, now known as A-2 or Air Intelligence. As with Billy Mitchell, my acquaintance with Major Hickam was at first purely social. He was an extremely charming man and a keen student of air matters. But for the tragic air accident that later cut short his brilliant career, I am convinced that he would have become one of America's outstanding military leaders.

One day in 1921, Major Hickam came to my office unexpectedly.

"Alex," he said, "this time it's business. General Mitchell has challenged the Navy, and we have a chance to prove that an airplane can sink a battleship. I recalled what you told me about your operations against the German Navy, not only in the air but with the Russian Surface Fleet."

"We have looked into your record," he added, eyebrow cocked, "and found much that you did not tell me." He paused ominously, then continued with satisfaction,

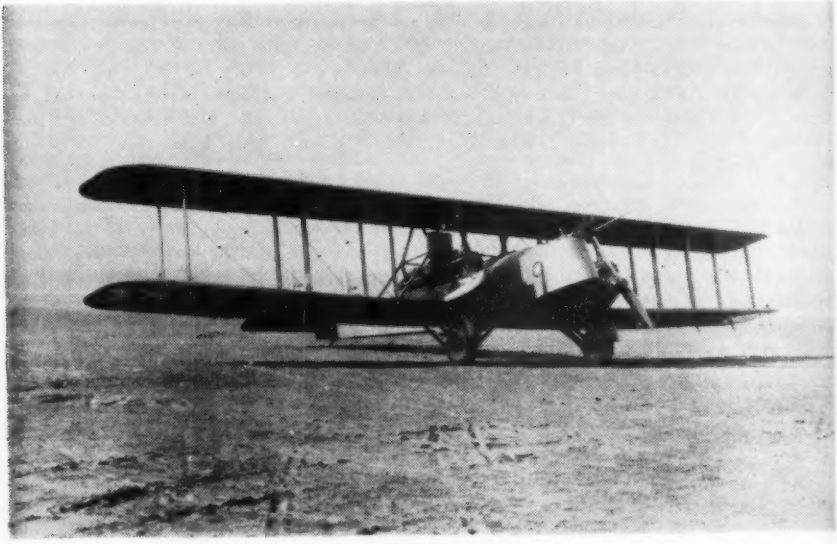
"We are convinced that you have the background that will be most helpful to us in our experiment."

The Major had to go no further. I packed my grip and was off to Washington for my first formal and extended session with General Mitchell, which ultimately led to my permanent association with him and with the United States Air Force.

Though the General was confident that he could accomplish his task, he was eager to lay his hands on all possible information. He was alert to any technical fact that might have a bearing on the bombing of naval targets. Fairly well acquainted with my experiences during the first World War, he nevertheless asked me to narrate them again in the greatest possible detail. I thereupon recalled the three years of my campaign service in Russian Naval Aviation.

Billy Mitchell listened attentively as I told him of our success in the Baltic area in sinking German transports, trawlers and destroyers from the air, as well as bombing air and naval shore installations. He sympathized with my exasperation at the time that in spite of direct hits on the enemy's larger warships our puny bombs could effect only partial damage.

Though this meeting was formal, we again found ourselves speaking the same language, a language which many military men trained in the old surface tradition do not understand even today, more than a quarter of a century later. After the conference, General Mitchell suggested that I go to Langley Field for the impending test bombardments. Once there, he took me out on the line and made me climb into every type of aircraft represented, explaining the equipment to me, its function and its performance. He also showed me the various bombs he proposed to use



Glenn L. Martin Bomber — 2 Liberty "12" Engines.

Typical of the bomber used in the latter part of the battleship sinking tests, and which, with modifications, was used for several years after the tests by Army fliers.

and expressed concern for the proper fusing of the 2,000-pound bombs shortly to be delivered by Army Ordnance.

The ensuing tests, during which General Mitchell sank all of his targets, finally culminated in an attack against the German battleship **Ostfriesland.** Despite several hits by 1,100-pound bombs, the vessel did not sink. The Admirals exulted, and the Army tittered. General Mitchell's idea seemed to have failed.

Further bombings using 2,000-pounders were scheduled, but even some of the General's partisans were beginning to worry about the outcome. It was at this time that Horace Hickam called me on the 'phone and told me that there was only one more test to run and that was with the 2,000-pounders. He hoped for the best, but wanted to make sure he wasn't overlooking anything. As he talked, an incident in the Baltic suddenly sprang to my mind.

My bombing squadron had been sent to an advance position on Runo, a little island in the Gulf of Riga. Our air activities were so intense that we ran out of gas, food and ammunition. As a result, we were grounded and at the mercy of German bombers. Finally, a large transport ship came with supplies. After unloading, it left the bay for the open Gulf. Almost immediately the vessel was attacked by a German 'plane. We chuckled with relief as we saw the string of eight light bombs miss their target and fall into the water alongside the ship. In a few minutes, however, our glee turned to anxiety. An SOS signal was raised on the ship's mast, and our radioman came running from the radio tower shouting that the transport was in distress. Those small bombs, exploding under the water **near** the ship, had produced enough pressure to open the steel plates!

As I related these facts to Major Hickam, I pointed out another advantage of a water-burst, recalling General Mitchell's apprehension that the bombs might fall apart on contact with the target before the detonation from their several fuses had a chance to propagate through the entire mass of TNT. I explained that since the bombs were streamlined, their disintegration would be delayed by a fraction of a second by their entering the water — just long enough for the fuses to detonate the entire charge of TNT and so insure maximum impact.

The rest is aviation history. Major Hickam rushed my story to Mitchell. At the next bombing, the 2,000-pounders were dropped **near** the target, and the underwater concussion sank the battleship.

Upon his triumphant return to Washington, General Mitchell called me in, thanked me for my assistance, and told me that, were I to agree, he would recommend my appointment as consultant to the War Department. Were I to agree! I was overjoyed, considering the appointment not only an unhoped-for opportunity but, also, a great honor in light of the fact that I had not been in this country long enough to become a citizen.

One important advantage that the United States Air Force had over the enemy in World War II was the accuracy of its air navigation and bombing. I wonder how many bombardiers in World War II realized that they had General Mitchell's courage and vision to thank for being able to claim that hitting a target was "as easy as shooting fish in a pickle barrel." The tale needs telling, for it may help remind the American people of the great debt they owe to this air-power crusader.

In our discussion of the results of the battleship bombing tests, we all thought the bombing accuracy remarkable considering the primitive sighting devices used. However, General Mitchell remarked that the tests were run at a fairly low altitude and he visualized that future bombing would have to be done from much greater heights. He wanted to know whether I had had any experience with sighting devices. I replied that I had and described to him a bombsight which I had invented and actually used, in its first crude form, in a number of bombing raids. There and then, he insisted on hearing all about it.

I explained that should I design a new, more efficient bombsight, it — like its predecessor — would follow the principles of the gunnery fire-control system of a battleship, except that it would have to be a fairly complex mechanism in order to be accurate in the range of altitudes and air speeds that General Mitchell envisioned. I remember being deeply impressed by his ready grasp of technical details which even trained engineers did not comprehend so swiftly. Even more impressive, however, was his ability to make decisions.

"This is what we have been looking for," he exclaimed to the members of his staff who were present. "It will do the trick!"

Though attacked a thousand times as a visionary, Billy Mitchell was always a man of action. He was of the breed of men who translate visions into realities, and though in military matters he was determined to the point of appearing ruthless, he was always kind and considerate of his men.

So it was in my case. In all his excitement over the invention he did not forget to inquire, "Have you patented the sight?"

"No, sir."

"Well, I want your rights thoroughly protected. Our Government doesn't want anything for nothing. If it turns out well, you're entitled to everything that is coming to you."

Learning that I had no attorneys, he assigned Colonel R. Young and Lieutenant Ernest Harmon, members of the Patent Division of the War Department, to give me their services, and cautioned me to pay the application fees out of my own pocket so that there could be no doubt of ownership.

"If you have any other ideas," Mitchell added, "disclose them to these men and file a patent. I don't want to discuss them now, but the moment the patents are filed, I want you to return and we'll have a session with my technical board."

The man's sense of justice, his innate honesty, were as genuine as everything else about him. His fairness was so infectious that it permeated the entire Air Service under his command.

When, a few days later, I had returned for further discussion and laid on his table my applications for a bombsight and inflight refueling, he was just as enthusiastic about the latter as he was about the bombsight.

He then informed me that my appointment as Special Consultant had been approved by the War Department and urged me to lose no time inspecting factories which in my opinion could undertake the construction of the bombsight.

After visiting several plants throughout the country, my recommendation that the Sperry Gyroscope Company be entrusted with the task was accepted, and the firm was asked for an estimate of cost. Until then the development of a bombsight had never exceeded a couple of thousand dollars, and production models were sold practically "by the gross." Hence there was consternation when the Sperry figure ran nearly $50,000 (yet production models of our current bombsight cost a quarter of a million dollars apiece!). The contract section of the War Department promptly recommended that the whole idea be dropped as exorbitant and unrealistic.

At that point the dauntless Mitchell intervened again. "We must find the money somehow. An automatic bombsight is essential to aerial warfare. I'd rather have one bomber that can hit the target than a whole flock of them that can't hit anything. Cut down on the number of bombing planes to be ordered, and divert the money to this project. The sight must be built."

The contracting officer saluted and left. When the others had gone out, only General Mitchell, Major Hickam, Colonel Young, Lientenant Harmon and myself remained. General Mitchell stood up and faced me, half amused, half desperately serious. He said, "I've stuck my neck out on this thing because I think you are on the right track. Go ahead and build the best _____ _____ bombsight you can. But God help you if it doesn't turn out the way you claim. In that case, your life won't be worth a nickel."

"On the other hand, General," interjected Major Hickam, who was then in charge of Intelligence, "if the bombsight is the best in the world, we must be dead sure that no other country can possibly pry its secret from the inventor. I'm afraid we'd have to do away with him. So if the sight does live up to Seversky's claim, his life still won't be worth a nickel!"

Under this double threat, I proceeded with the work at the Sperry plant. In the spring of 1923, less than two years after Mitchell had launched the project, the instrument was finished. The Sperry Company had done a splendid manufacturing job. I brought it to McCook Field, at Dayton, Ohio, where I rigged up an indoor testing device. By remote control, a model battleship was manoeuvered on the floor so that its course and speed could be changed at will. The sight was mounted on an elevated platform, from which missiles were released at the precise time calculated by the instrument's computer. Through Major Hickam, I notified General Mitchell that the device was ready for his inspection. One day, unannounced, he landed at McCook Field.

I have never seen anyone so boyishly excited, so enthusiastic. He climbed onto the platform and acted the role of bombardier; then General Mitchell was the pilot; then he was on the floor manoeuvering the "battleship" to test the bombsight under every conceivable condition — all the while giving me valuable pointers for its future installation and operational use. When "hits" were scored, as they were every time, he shouted with exuberant joy. "That's the stuff, Seversky! Now let's get it down to Langley Field and drop some live ones."

At Langley we found the device too big for the cockpits of the contemporary bomber. The size of the computer alone was about three cubic feet, and the whole bombsight weighed nearly two hundred pounds (contrast the modern bombsight, which weighs more than a ton!). After working away with hatchet and handsaw,

I modified the plane's nose enough to squeeze in the sight with its gyro and computer. Even then, however, I had to apologize to the General for removing my wooden leg in order to fit myself into the available space. "Don't let that bother you," remarked Mitchell. "If the bombsight goes into service, we can remedy that very easily. The right legs of all bombardiers will be amputated."

The live tests were one hundred percent satisfactory; and later, on November 26, 1923, General Mason Patrick, Chief of the Air Service, when purchasing the rights to this invention for the U. S. A., wrote, "The Seversky sight is undoubtedly better than any in existence . . ." Again, General Mitchell's willingness to stick his neck out for a national cause was justified: America possessed the first all-automatic bombsight in the world. The principles of that instrument provided the foundation of our present sights. More than that, because of the relentless pressure from General Mitchell for greater accuracy and precision in the device, we at the Sperry plant had to improve the instrument's gyroscopes. This led to the development of the artificial horizon, the azimuth-gyro and other gyroscopic devices which are the mainstays of our present air navigation. As a result of the energy and foresight of this great man, Billy Mitchell, America today leads the world in instrument flying.

In this article I have been concerned primarily with Billy Mitchell's technological contributions, which are generally less well known than his strategic concepts. His analysis of a future war in the Pacific, for example, received wide public attention after the Pearl Harbor attack. People were amazed at the pinpoint accuracy of his predictions.

"Our present system of defending the Hawaiian Islands," General Mitchell had written in 1929, "is perfectly ridiculous. The last time I looked it over, I thought to myself that it was no more efficient in this day and age against a modern air attack than were the Hawaiian Islanders, running up and down the beach with their spears and yelling at the top of their voices, when Captain Cook came there in 1774. Our defense is based on a land army, coast defense guns and battleships, all of which are uncoordinated. A modern boy fifteen years old, who knows about air power and has had simple military training in high school, could work out a better system."

But while the public has long been impressed by such remarkable insight, the total impact on world events of Mitchell's postulates has not yet been fully appreciated.

In all of his analyses of the Pacific as a future theatre of air operations, Mitchell clearly prescribed the **island-to-island approach to the enemy.** Always air power spearheaded the operation, and armies and navies secured and supplied the bases. This was his unique interpretation of the problem, limited in its scope only by the performance of the aircraft of his day and of the then foreseeable future.

That concept, of course, was radically different from the official strategy of our War and Navy Departments, which visualized for the Pacific conflict traditional Naval warfare wherein our fleet would sail directly to the Sea of Japan, sink the Japanese Navy and starve that "little insular nation" into submission by a water-tight blockade.

Mitchell's ideas were treated with official disdain. To preclude their acceptance by the American people, his writings were branded by our vested interests as yellow journalism. And what happened? To use the banal analogy of the "prophet without honor in his own country," the man whose ideas America rejected so carelessly was recognized as a true apostle of military art by the resourceful and cunning Japanese. His teachings they accepted as a Bible of modern warfare. They developed Mitchell's triphibious land-sea-air concept to perfection.

The initial successes of Japan, in which we were expelled from the Pacific, were accomplished precisely by this method. Likewise, our eventual regaining of the area was achieved by a "Chinese copy" of a Japanese blueprint of war. Because our prodigious industry was unmolested, we were able to build bigger and better land, sea and air teams, provide bigger and more powerful aerial spearheads, thus defeating the Japanese at their own game by the sheer weight of our men and machines.

So, it can truly be said that our victory in the Pacific was won with a strategy conceived by General Mitchell in America, made in Japan, and imported back to the land of its origin.

As I reread Mitchell's works in the light of present events, I am conscious of a sense of extreme apprehension. Will we as a nation repeat that ominous cycle?

The Air Force emerged from World War II as the dominant factor in our scheme of national defense. Yet today, as in General Mitchell's time, it struggles to achieve our country's acceptance of the ultimate air doctrine. We airmen are still on a soap box, trying, with every aid of modern mass communication, to convince the public that we must have an invincible Air Force of **truly** intercontinental air capabilities — both aeronautical and ballistic — to save our nation from atomic destruction.

But progress is perilously slow. The American people are misinformed and confused by vested interests' propaganda on the subject of national defense. Again, as in Mitchell's day, the current air concept is treated officially with disdain. Our top air generals are ridiculed as narrow-minded "air enthusiasts" and "dedicated specialists."

More than a decade before the attack on Pearl Harbor, Billy Mitchell, warning us about Japan, stated that, "she estimated when war does come America will begin with the methods and systems of the last great conflict. She (Japan) is therefore preparing so that every advantage may be taken of new developments in the art of war. Her aviation is receiving first consideration."

Without changing a single word, that warning could be repeated today to describe our strategic position vis-a-vis the U. S. S. R.

Will America once again carelessy dismiss the sole valid military doctrine of our time, only to have it honored by a potential enemy?

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AIR POWER AND THE WARSAW UPRISING
(August-September 1944)

by
Marvin W. McFarland

INTRODUCTORY NOTE

The history of the so-called FRANTIC Project, which was given organizational embodiment as the Eastern Command, U. S. Strategic Air Forces in Europe, is the history of the first and, as events would have it, only military experience of the United States, or of any of the Western Allies, with the high command and armed forces of the Soviet Union in World War II. In terms of actual operations, FRANTIC never passed beyond the stage of an experiment in inter-theater shuttle bombing and long-range reconnaissance to and from three principal air bases some 50 miles apart on a west-east line between Kiev and Kharkov in the central Ukraine. These airfields were at Piryatin, Mirgorod, and Poltava, the last serving as the site of Eastern Command headquarters and the main depot. Project personnel also functioned periodically in Moscow, 650 miles to the north, and at Soviet airfields and cities within a 250-mile radius of the base areas. The total number of more or less permanently assigned personnel was about 1500, but nearly 5,000 combat crew members and Air Force staff personnel and specialists had brief assignments or missions at Eastern Command.

In its operating phase, which extended from 1 June to 1 October 1944, Eastern Command accommodated seven separate task forces, four from the Eighth Air Force in the United Kingdom and three from the Fifteenth Air Force in Italy. These forces executed a total of 18 bombing and strafing missions besides the dropping of supplies to the insurgent Polish underground army in Warsaw. Seven of these missions were west-target-east shuttle missions to the Soviet Union, eight were east-target-east missions in which U. S. aircraft took off from and returned to Eastern Command fields, while bombing operations could be mounted on only three of the east-west flights, i. e., on four occasions shuttle aircraft had to be returned to their home stations in England or Italy without payloads.

* * *

The first shuttle-bombing mission by the U. S. Strategic Air Forces was run from Italy to the Soviet Union on June 2, 1944, just four days before the launching of the Normandy invasion — the long-awaited second front against the Fascist powers. At this peak moment of Russo-American wartime amity and collaboration, the Communist Party organ **Pravda** reported the event on 3 June in the following self-congratulatory terms:

> A large group of Flying Fortress bombers, after completing an important military operation, have landed on bases now located in the U. S. S. R. The successful advance of the Red Army to the West was a necessary prerequisite for close cooperation between the American and Soviet Air Forces . . . .

The tide of friendship had reached its flood and was about to recede — how swiftly!

Contrary to the opinion of **Pravda**, the amazing advances of the Red Army in the spring and summer of 1944, especially the penetration of Poland and Roumania, had effects inimical to the shuttle-bombing project and to the extension of Soviet-

Allied cooperation in the air war against Germany. The net result of Soviet progress, from the viewpoint of strategic bombing, was that the occupied territories of eastern and southeastern Europe, once redoubt areas, strongholds behind the German lines, within which lay targets safe from destruction except if recourse was had to shuttles from Italy and England to bases in Russia, had now become the private preserves of the close-in tactical thrusts of the Red Army and the Red Air Force, as inaccessible as ever to the Allied long-range air.

This situation implied three major problems for Eastern Command. The first was the increasing difficulty of selecting targets whose attack by U. S. aircraft on their return flights to Italy or England the Soviet General Staff could reasonably be expected to approve. With their anxiety to please, or at least not offend, the Russians, the Americans usually suggested targets which they thought would aid the advance of the Red Army. After a month of trying to elicit some positive response from the Soviets, Maj. Gen. John R. Deane, Chief of the U. S. Military Mission in Moscow, decided to leave the selection of strategic bombing targets to U. S. Strategic Air Forces (USSTAF) Headquarters in England. Deane had come to realize that the Russians probably did not care to indicate prematurely the nature of their next offensive in the Balkans and in Poland and that they were childishly apprehensive lest the United States get credit for even minor contributions to their success. The target selection problem was so difficult, in fact, that after the 2 June mission and the severe German bombing of FRANTIC bases on the nights of 21/22 and 22/23 June no further heavy bomber operations were run in from Italy and only one additional strategic mission from England. The remaining FRANTIC operations were fighter-bomber sorties from and to Italy and supply mission from the United Kingdom.

The second problem was that of conducting interminable negotiations with obdurate Soviet officials in the hope of obtaining their agreement to a suitable bomb-line on which to regulate the operations of the Red Air Force and of the Mediterranean Allied Air Force in the Balkans. After many proposals, all of which the Soviets rejected, Lt. Gen. Ira C. Eaker, the Commander-in-Chief of MAAF, drew his own bombline and bluntly informed the Russians that he would operate on that basis.

The third problem was represented by the great agitation by American political and military leaders in Washington, Moscow, and London for the expansion of FRANTIC, for the removal of its bases farther to the west, even into the Hungarian Plain, and for the conversion of the project from a terminus for shuttles to a full-fledged home base area for a strategic air command.

While these problems were absorbing the energies of the Americans, the Kremlin was burning its lights far into the night for quite other reasons. The Red Army summer offensive of 1944 had ended the "Great Patriotic War" for the liberation of the Russian motherland and had marked the beginning of a "Great Revolutionary War" for the conquest and Communization of at least the eastern portion of Europe. That preparations for this politico-military struggle, which in less than three months brought Roumania, Poland, and Bulgaria irrevocably within the sphere of Soviet domination were the chief Soviet pre-occupation at this time, and not the mere military defeat of the common German foe, would not have been credited by the American leadership even if they had been known of. Nevertheless, the fact that this was the case was not long in revealing itself, and the American political leaders and military commanders, especially the air commanders, found themselves in the thick of machinations, conspiracies, blood feuds, and usurpations beyond their experience and imagining. The main concern and chief responsibility of

the American air forces was the prosecution of the strategic air war, first against Germany, then against Japan. They asked only to be allowed to get on with it. That the little U. S. shuttle-bombing project in the Ukraine could be made a cat's-paw in the rape of Poland was hardly believable, but if it should be so, let the need for Siberian bases for the air war against Japan be remembered, and if the ghosts of 250,000 slaughtered Warshavians should rise to haunt the conscience of the West, let the Kremlin, the author of their murder, look to the cure of its own soul.

In order better to understand what happened later, it is well to review the operations of the Red Army in Poland in the last days of July and the beginning of August 1944. On 28 July, Lwow was captured, and Jaroslav and Przemysl fell. The German defense on the San began to fade.

> The Soviet plan called for the crossing of the Vistula from Jusefow and Baranow. For the Soviets it was a question of heading off the armored and motorized forces which the Germans were pushing up to those places with all haste, under the cover of delaying units. On 30 July, the advance guards of the 1st White Russian Front reached the Vistula, fell in behind the retreating Germans, and began to cross the river. To the north of Sandomierz, in the sector bounded by Jusefow and the confluence of the San, General Gordov threw out little bridgeheads. To the south of Sandomierz, from Tarnobrzeg to Baranow, the tanks of Katukov's and Pukhov's infantry met with success. General Vekhin's division, which arrived on 31 July, built life-rafts, crossed the river, and dug in on the west bank. The Germans counterattacked for four days running with two fresh divisions, one armored, one infantry, but in vain. The Soviets succeeded in mopping up the east bank and widened their bridgehead which on 3 August attained an area of 25 by 30 kilometers.
>
> From 1 to 10 August, the failure of its counterattacks, which had not prevented the Soviets doubling their bridgehead, determined the German command to form troops from other sectors and from Roumania three groupments comprising, among others, six armored divisions which by attacking from three different directions were to have liquidated the bridgehead.
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> For four days fighting of extreme violence ensued. In a single sector of the front the Germans attacked with two infantry regiments and 70 tanks supported by successive waves of from 30 to 40 aircraft. They penetrated the Soviet positions but were thrown back. One Soviet artillery unit alone destroyed 22 tanks.
>
> Elsewhere, armor repelled the attack of 2 divisions and 50 tanks and left on the ground 1,000 dead and 18 tanks. New attempts of the same kind failed and cost the Germans enormous losses. Finally, the Soviet command, having reunited its forces, launched two simultaneous attacks, one from the bridgehead north of Sandomierz to the west, the other from the southern bridgehead to the northwest, encircling three divisions reinforced with special formations. On their refusal to surrender, they were annihilated. . . . (Guillaume: **La guerre germano-sovietique,** p. 176-7.)

Inside Warsaw the Polish population, and especially the Polish Home Army, under the leadership of General Bor-Komorowski, were poised to unleash a long-prepared uprising against the Germans and join forces with the advancing Red Army, among whom were their compatriots, the so-called Army of National Liberation of General Berling, serving under the Soviet Marshal Rokossovski.

On the night of 27 July, the eve of the liberation of the ancient city of Lwow, a manifesto was issued by the Committee of National Liberation (the ill-famed Lublin Committee which the Soviets intended to install as the legal government of Poland), calling on all Poles to "strike the Germans wherever you meet them." It was followed on 30 July by two more broadcasts from Moscow — one by the Union of Polish Patriots, a Communist organization, the other by the Kosciuszko radio station which in the days of the Commintern had been the voice of the Communist Party beamed to Poland — exhorting the population of Warsaw to form itself into a people's army one million strong and "help the Red Army cross the Vistula. Give it information and show it the best fords."

On the first of August, certain that the Red Army would reach the city within a few days, Bor gave the signal and the uprising began. Of his 50,000 Home Army troops, only about a third were armed but all fought furiously and were greatly aided by the entire population whose combative spirit was raised to a fine pitch by the expectation of liberation from an intolerable yoke. Authority to launch such an uprising had been given to Bor in a directive from the Polish Government in London in October 1943. The nearness of the Red Army, whose power had swept everything before it since the initiation of its summer offensive, together with the alerts broadcasted from Moscow by seeming friends, determined Bor to exercise his prerogative. Natural though it was and justified by appearances, this decision was essentially a tragic blunder.

In the Kremlin in the first days of August, Stalin with Molotov assured Mikolajczyk, Prime Minister of the Polish London Government and president of the Polish Peasant Party, that the Red Army would take Warsaw within a few days, probably by 6 August. This estimate agreed with the calculations of Bor before he bagan the insurrection. It is interesting to note that Stalin's optimism was reflected in the views of the Red Air Force personnel at Eastern Command headquarters at Poltava, for in delivering the daily Soviet operational summaries during the first week of August, they assured the Americans that Warsaw would be in Soviet hands no later than 15 August.

When Warsaw did not fall by 6 August, and the Red Army remained outside the gates making no move to approach the city, Mikolajczyk, who had returned to London, began to address appeals to Stalin through the Soviet Ambassador, Lebedev, and when these brought no result, or even acknowledgment, approached Churchill. Within the revolting city, Bor had made remarkable initial success against the Germans and by 4 August had wrested from them most of the principal government buildings, but he had never expected to be able to continue offensive action for more than a few days and was now suffering high losses and being forced to stave off attacks by German tanks with little more than homemade petrol grenades.

Churchill, doubtless remembering all too well that the cause of Poland was the cause that had brought England to war against Hitler, was quick to act. Through the British Chiefs of Staff he prevailed on the Combined Chiefs of Staff to have General Sir Henry Maitland Wilson, Supreme Allied Commander, Mediterranean, divert a part of the effort of his MAAF special operations unit to the transport of food and ammunition by night from Italy to Poland. It was a long haul for these RAF aircraft, and their success in finding the target was not always good. Moreover, their losses to German night fighters and flak were high, and in some instances aircraft were brought down by Red Army artillery which was under standing orders to fire on all planes whose presence and purpose had not been cleared and made known to local commanders by the Red Army General Staff.

About the middle of August, three new moves were made to bring relief by air to Bor's hard-pressed army and to the suffering people of Warsaw. On 12 August, the British Chiefs of Staff asked the U. S. Chiefs to reconsider their decision not to use the heavy bombers of the Fifteenth Air Force to assist the RAF in dropping equipment and supplies to the Warsaw Poles from Italian bases. On the same date, the Air Ministry approached General Carl Spaatz, Commanding General, USSTAF, on the possible use of American bombers based in England. At about the same time, Mikolajczyk made a personal appeal to Roosevelt which Churchill endorsed.

Spaatz supported the decision of Eaker, the MAAF commander, not to commit the heavy bombers of the Fifteenth Air Force to the Warsaw relief operations, first because their use without fighter cover over the entire 770-mile distance was operationally unsound, and second because their effort was soon to be absorbed in supporting the invasion of southern France. To the Air Ministry, Spaatz replied that his existing directive gave him adequate discretion to carry out relief operations from England if he considered them tactically feasible, and provided the Russians approved. He agreed to study the practicability of having the Eight Air Force carry out a relief mission on its next shuttle to Russia. With the special brand of diplomacy characteristic of them, the British thereupon decided against making further appeals to the U. S. Chiefs of Staff and to leave it to Spaatz to break to them the news of the proposed American operation to Warsaw.

The stumbling block in the way of this seemingly simple solution was the matter of getting Soviet approval. On 14 August, the Eighth Air Force filed with Eastern Command alternate flight plans, one for a straight bombing operation to Konigsberg, the other for a supply drop to Warsaw. With equal promptitude, Molotov on the 15th informed the American Ambassador in Moscow, Averell Harriman, who was on the point of departing for Washington, and the British Ambassador, Clark-Kerr, that the Soviet Government would not approve Plan B and vigorously opposed the use of FRANTIC for supply assistance operations to the Warsaw Poles. Later the same day, perhaps after Molotov had reported his conversation with Harriman to Stalin, the Soviets disapproved both flight plans. On the 16th, Spaatz officially concelled the first two plans and submitted three new ones, none relating to Warsaw.

An 15 August, the Joint Chiefs of Staff, after considering messages from Spaatz and Eaker setting forth the operational difficulties of successfully executing the proposed supply drops in the face of German flak (at first reported to be negligible but found by the RAF to be intense and accurate) and of the consequent necessity of operating at no less than 10,000 feet, informed the Supreme Allied Commander, General Eisenhower, that they had decided against making a definite commitment to the Poles, though the U. S. Air Force would give whatever aid was possible consistent with existing operational priorities and with the operating conditions at Warsaw, and provided always that the Russians approved.

The RAF in the Mediterranean were naturally perturbed that in the absence of any contribution to the Poles from the Eighth Air Force they continued to bear the whole burden of supplying Warsaw. On 28 August, Maj. Gen. F. L. Anderson, Spaatz' operations deputy, had to explain to the British that the Russians were adament on the Warsaw question and, further, that because of Soviet activities in the Balkans, which the Russians with frank enthusiasm described as "impending great events along the Roumanian border," plans for winterizing Eastern Command preparatory to a possible expansion in the spring were being jeopardized. The "great events" in Roumania were of course connected with King Mihai's ouster

of Antonescu on 23 August and acceptance of Soviet armistice terms (greatly stiffened since the first Cairo proposals), which thus made way for the coalition government. (This four-party coalition was relentlessly undermined by the Communists and finally overthrown by them when, on 27 February 1945, Vishinski in a stormy interview forced Mihai to appoint Dr Petre Groza as prime minister.) In view of the Soviets' increasing hostility and their unwillingness to clear the overall plans of most interest to USSTAF, i. e. the expansion of FRANTIC, Anderson thought the British as well as the Americans should give up the Warsaw job completely.

On 7 September, Anderson was in Washington and called on Harry Hopkins at the White House. On the dropping of supplies to the Polish partisans in Warsaw, Anderson told Hopkins:

> The U. S. Government would be seriously jeopardizing its relationships with the Russian Government if we pushed our demands to drop those supplies and use Russian bases. We have been used as tools by the British in this matter to the detriment of the relationship between Russia and the United States. Even if the Russians permitted us to conduct this operation, our chances of contributing to the Poles in Warsaw were very small. . . . The whole situation had the makings of a serious international incident of the greatest future consequences to the United States, with little if any chance of help resulting to the Poles. . . .

Hopkins said he agreed and would present the matter to the President immediately. He would also see to it that any cables from Churchill or Winant on this subject were held in abeyance and that the United States was not committed to the Warsaw job.

The British, however, were ahead of Anderson. On 10 September, Clark-Kerr advised his government that Molotov had informed him that, if the British insisted, the Soviets were prepared to act jointly, but with reluctance, with the Americans and the British in a plan to be concerted for the dropping of weapons, food, and medical supplies for the insurgents in Warsaw. General Marshall, the U. S. Army Chief of Staff, thereupon instructed Deane to work out the necessary plans with the Russians and coordinate with Spaatz.

At that moment, an Eighth Air Force mission was at Eastern Command bases, so that the scheduling of the Warsaw dropping operation was dependent on the clearance of those aircraft from Russia. It was also directly connected, in USSTAF's view, with plans for the reduction of Eastern Command's personnel for the winter. In consideration of the early Russian snowfall, it had been decided that 1 October was the last date for the evacuation of all but 200 Americans who were to remain at Poltava (Mirgorod and Piryatin were to close completely) until the spring of 1945 when it was hoped the expansion of the project could be reexamined with the Russians if the overall strategic situation in Europe still warranted the use of Eastern Command facilities. It was the opinion of Harriman and Deane, however, that the Soviets would never consent to the Americans having bases in Roumania or Poland. On 13 September, Spaatz informed General Arnold, the U. S. Army Air Forces Commander, who was attending the OCTAGON Conference at Quebec, that 100 heavy bombers would drop supplies to Warsaw on the first operational day. He added:

> I believe you will concur that this eliminates need for special American and British representative to go to Russia on this matter as it is considered that this discharges our obligation. Nc further action will be taken here unless

instructed otherwise. Eastern Command reduction now scheduled for 20 September and at this time further shuttle operations are not contemplated.

Weather held up the operation for a few more days but it was finally carried out, with disappointing results, on 18 September. Though observation was difficult due to intense flak and heavy smoke over the northern part of the city and for 8 minutes' flying time along the Vistula, some crews estimated an optimistic 50% of the supply containers landed in the target areas. Almost immediately, the London Poles began to report what they were learning from inside Warsaw. The effect on the morale of the fighting forces and the civilian population had been greater than the meager number of containers retrieved — 288 out of 1284 — would seem to have justified. The London Poles, stirred by messages from Warsaw, pressed for another mission.

On 22 September it was learned authoritatively that the Soviets, apparently in fulfillment of their promise of joint action, had been dropping supplies of their own for the past 6 nights, though there was some evidence that they had begun as early as the 13th. The Russians were critical of the Eight Air Force's tactics in the drop of 18 September and complained that the Germans were collecting more of the canisters than the Poles. The Poles, however, claimed that the Russian drops were next to useless since they were all free-fall, even though from low altitudes, and much of the supplies was destroyed by the impact.

In view of the need to evacuate Eastern Command bases by the first week of October, the question of whether or not there was to be another drop to the Poles was a matter of some urgency and no little political delicacy. Harriman referred the problem to Roosevelt who decided that additional assistance by the U. S. Air Force would be dependent on the date of the relief of Warsaw and the assistance given in the meantime by the Soviets. At the same time, Arnold authorized Spaatz to close out the bases when it became militarily necessary to do so, i. e., when the imminence of winter weather jeopardized the evacuation of American personnel and equipment.

At USSTAF Headquarters, however, there was a growing concern that political considerations might force the United States to continue its assistance to Warsaw at the expense of more profitable military operations. This fear was not without substance, for on 25 September Mikolajczyk wrote Winant, the American Ambassador in London, appealing for another drop using delayed-action parachutes to improve results. The British asked USSTAF to delay the closing of Eastern Command bases, and the date was moved ahead to 5 October. On the 27th, another appeal was made to Winant indicating that the population of Warsaw was starving, eating dogs, and living in the sewers. An enclosed report from the head of the Department of the Interior in Warsaw concluded: "We are facing either capitulation or an exodus of the population, because of the famine, to the Germans." The Polish Embassy's appeal stated:

> The defenders of Warsaw are pinning their faith on a further American day expedition, and the Polish Government hope that it may be taken in the nearest possible future..

Confronted with this situation, Spaatz from his advance headquarters in France ordered USSTAF to prepare one more FRANTIC operation, provided that the mission would not interfere with the timely evacuation of the Russian bases as planned and if proper facilities were available there for the necessary servicing of aircraft and repair of battle damage. On 29 September, Churchill telephoned USSTAF and in the absence of Spaatz spoke with Anderson:

I have just had a painful visit from Mr. Mikalojczyk, the Pole, and their story is that the Russians are making headway, around the Flank, but if they (the Poles) don't get another packet they can't go on. . . I understand you were well disposed towards making another effort. . . .

When Anderson explained that Spaatz had given the order and that the mission would be carried out unless weather precluded its completion by 5 October or within a day or two of that date, Churchill concluded:

I'm most grateful to you . . . on behalf of the British Government. Although your people are just as keen on it as ours, it happens to fall to you to do this dangerous task. I wish we had the machines to do it. A noble deed. You tell General Spaatz that I made an appeal and that I shall tell the Poles I made an appeal and you're going to try your best. . . .

The Soviet explanation of the Warsaw affair was given to Harriman by Stalin on the evening of 23 September. Stalin said the battle of Warsaw was not going to his satisfaction, that German shelling had made it impossible to get tanks across the Vistula. Only a wide encirclement could take the city. In the meantime, four Polish infantry battalions crossed the river at the insistence of General Berling and against the better judgment of the Red Army. These battalions, unfortunately, would have to be withdrawn, said Stalin, because they had suffered heavy losses. He claimed that the insurgents were causing more difficulty than assistance. They were still fighting in four different isolated parts of the city but without offensive ability. There were about 3,000 in all who had arms, but many sympathizers were giving assistance where possible. Stalin explained that it was difficult to shell German positions or bomb them because the insurgents were intermingled with the Germans. The Red Army was in contact with each of the groups by radio and courier.

Stalin went on to say that it was now understood why the insurrection had been started prematurely. It became necessary for the men to fight, he said, because the Germans had threatened to deport the entire male population, and as they faced death either way they had no choice. The Warsaw men, therefore, who were organized started resistance, and the others had gone underground, hiding themselves in sewers.

Stalin did not mention the London Government but he claimed that General Bor could not be found, that he had evidently left Warsaw, and was in some unknown place "commanding a radio station." Stalin then criticized the American supply drop and gave a much more glowing account of Red Air Force assistance than had been given Deane by the Soviet General Staff.

Stalin said that when the Red Army liberated Praga the population was found starving. The Germans had ordered all the men deported, he repeated, and used police dogs to hunt them out. He claimed it had been possible to judge the situation much more clearly after Praga had been captured.

Harriman thought Stalin in this interview showed understanding and concern for the Warsaw Poles and none of his previous vindictiveness!

The rest of the story of Warsaw and of the USSTAF shuttle-bombing experiment does not take long to tell, for they were both hurried off the stage within a few days of each other by the master scene-shifter whose Machiavellian apology for one of the most dastardly acts of modern history has just been summarized. The final developments were given by Anderson in a letter to Churchill dated 2 October:

In response to the urgent need of the Poles in Warsaw, we scheduled a supply-dropping operation for Sunday, 1 October, but due to adverse weather conditions

it had to be cancelled. The conditions were also unfavorable for Monday and it appeared we could conduct this operation on Tuesday, 3 October. At 6 o'clock this morning I received the following message from our representatives in Russia:

'Soviets have disapproved flight plan for 2 October. It is their contention that evacuation of all partisans has been completed and that the only result of such a mission would be to deliver supplies to the Germans. They state further that the Warsaw project at any future date would not be approved by them.'

Since it is necessary for us to use Russian bases to accomplish this operation, it is apparent that we cannot go ahead . . . I have so advised Ambassador Winant and my Government . . .

Reluctant as the Americans had been to carry out the Warsaw dropping operations under existing adverse tactical conditions, the Soviet action of 2 October was deeply shocking to them. Harriman and Deane in Moscow tried to find a satisfactory explanation, and requested the Soviet General Staff to confirm both the decision and the reasons given to Eastern Command officers at Poltava. If confirmed, Deane thought it politically advantageous to the United States not to press for Soviet reconsideration. He wired Spaatz:

As the situation now stands, we are in the favorable position of wanting to run the mission but unable to do so because of Soviet disapproval. If they approve under conditions we are not prepared to accept (a drop from low altitude), this will strengthen the Soviet position and put us in the light of not doing everything possible to aid the Poles.

The dilemma was resolved on the morning of 3 October when the Moscow papers announced that the Polish Home Army in Warsaw had surrendered. Even in this black hour, the Soviet propaganda machine tried to brand General Bor as a traitor to his forces. The Moscow press claimed:

He has rejected the idea of breaking out of Warsaw . . . . Thus the leaders of the uprising who did not consult the Soviets in the beginning are continuing to follow their own selfish interests and are ending the uprising by capitulating without regard for the fate of the heroes who have risen, and they prefer to surrender them to the Germans, rather than unite with the Polish (Communist) forces in battle.

On 3 October Spaatz informed Mikalajczyk and on the 4th Washington and Caserta that the emergency operating facilities at Eastern Command bases, the military necessity for proceeding with the planned evacuation, the collapse of organized resistance in Warsaw, and an outlook for continuing bad weather prevented further consideration of shuttle flights carrying supplies to the Polish patriots, even in areas outside of Warsaw, in the Radom district, as had been suggested. At the same time, he ordered Eastern Command to proceed with the evacuation, leaving behind only a small caretaker detachment to hold on until such time as the whole question of Soviet-Allied military cooperation had been clarified.

On 5 October a long train pulled out of Poltava headed for Tabriz, and from there a truck caravan rolled across the desert to Cairo where a ship was waiting, bound for Liverpool. The most adventuresome mission of the U. S. Strategic Air Forces in Europe was over.

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A WAR DIARY

by

Lieutenant Roland R. Birnn

(Editor's Note: This is a diary of a young military pilot which vividly exposes the needless waste and hazard that a nation faces when it fails to make timely provision for war.

Lieutenant Birnn entered the service as a flying cadet July 1, 1940. He was commissioned in February 1941, and was assigned to the Philippines shortly before Pearl Harbor.

He crashed and was killed in Brisbane Harbor, July 4, 1942 while testing an A-20, equipped with eight 50-calibre forward firing guns. After the acceptance tests he was to fly this plane to his combat base at Charters Towers, in North Australia.)

* * *

San Francisco, California — 1 November 1941

We sail today. We flew out here from Charlotte a few days ago. Yesterday they pushed a boxcar, loaded with officers' baggage, into the Bay. The salt water sure made a mess of things. I lost plenty, — a brand new $75.00 wardrobe trunk, clothing and, also, a new shotgun.

We sailed at noon today on the President Coolidge. A wonderful ship. Couldn't see the top of Golden Gate Bridge for the fog.

At sea, en route to Hawaii — 3 November 1941

Beautiful weather and calm sea. Coolidge is a luxury liner; — two swimming pools, gym, huge sun deck. We have a beautiful cabin with large closets and bath. Movies every night. What a life! This ship, being the flagship of the American President lines, is noted for its fine food. We eat like kings. I am eating enough for four men.

Honolulu — 6 November 1941

Arrived at Honolulu at dawn. These islands are the most beautiful things I have ever seen. We are being allowed to go ashore, but sail again this afternoon. Took a trip around the island. What a place to live in; — climate wonderful, water perfect. Wish I could stay here. I don't want the Philippines; — nothing there.

At sea, — en route Philippines — 16 November 1941

Stopped at Guam this morning while Army transport, now assigned to our convoy, unloads food and takes on water. Navy planes patrol around us, on lookout for subs. Guess we will go to war with Japan someday.

Manila, P. I. — 20 November 1941

Arrived Manila this afternoon. Typical large native population city. Lots of smells. We are staying at Ft. Wm. McKinley, — an infantry post in the outskirts of Manila. Men living in tents, — officers in empty quarters.

We have no planes, — supposed to come later.

Not much to do. Go into Manila often. Things very cheap over here. Doing all my Christmas shopping in Chinese shops, — beautiful stuff.

Ft. McKinley, P. I. 26 November 1941

Got my flying time in today, — flew B-18 from Nichols to Clark and back. Jap situation looking worse, — don't think our planes will arrive in time. Hope the Japs don't attack P. I. as we're not prepared, — hopelessly short of combat planes.

W A R ! ! !

Ft. McKinley, P. I. 8 December 1941

Just heard the Japs bombed Pearl Harbor. Looks bad!

Well, it's here! Word just came in that Baguio and Clark Field have been bombed, — Clark almost wiped out, — and here we sit with no equipment.

Why didn't they send more planes to the Philippines? They knew this was coming.

Sent some of the new pilots to Nichols Field. Going to use them in pursuit. Won't let any of the bi-motored pilots go, — figure we might be needed. Probably be transferred to a bomb group as our planes haven't arrived. Funny they never built any bomb shelters on McKinley, — only two.

Eight crews from our group were to go out to Nielson Field tonight. They were going to bomb Jap bases on Formosa with B-18's. Having to use B-18's would be suicide. The crews later returned, — no planes, — all were destroyed on Clark Field.

Nothing to do — so went to a movie on the post.

Ft. McKinley, P. I. 9 December 1941

Awakened at 3:15 by bombs. Japs just bombed Nichols Field, — which is close to McKinley. Could see the flashes. All over the post the Philippine soldiers started firing their 30-cal. machine guns: Had red tracers. Very pretty, but no damn good. Was to keep planes from flying over post. Silly! Some bombs dropped very close. Went back to bed.

In the morning found Japs had hit Nichols Field and destroyed hangars. Also hit the P. A. A. radio station near McKinley. Was issued a service type gas mask.

Had two more raids near us at 10:45 A.M. Ibea, a small pursuit field, has been completely wiped out. Japs dropped tons of bombs on it. At noon bombs hit in officers' mess, — killed lots. Some of the men are now assigned to our group, — they're all bomb happy. Almost everyone has moved and is living in the jungle at the edge of the post.

At Ibea some of the pursuit boys were flying over the field while it was being bombed. First they knew of the raid was seeing the bombs hit. Several were killed in planes on the ground and one while landing.

The attack on Clark the previous day destroyed one-half of our B-17's; the rest luckily were south in Mindanao.

I have $438.00 in the Philippine Trust Company, — hope it doesn't fold.

Ft. McKinley 10 December 1941

Had two warning sirens last night, — no planes.

Japs invading Northern Luzon, — using some parachute troops.

Sent fifteen of the new boys over to Nichols to fly P-40's. I, with seven of my classmates, went over to Nielson Field to replace the first bunch sent over to fly P-40's, — claimed these boys did not have enough experience.

Air raid a few minutes after arrival. Jumped in a drainage ditch. Watched P-40's and Japs dogfight. Headed for a culvert when bombers came over. One, with wheels down, strafed me, — heard bullets strike the ground where I had been. One bomb landed nearby, — shook the ground. Planes strafed the field and burned General Brereton's new transport. This ship was to take us to Clark Field. Nichols Field was also badly damaged again. Cavitte Naval Base was almost completely wiped out.

The air was full of Jap planes.

After the attack we returned to McKinley. That night we went up to Clark in a reconnaissance car. Hard to find in a blackout. Arrived and slept on ground. Ten pilots went along.

Clark Field 11 December 1941

Spent day doing nothing. Dug a foxhole and fixed up bunk under a tree. We are in the woods that contains headquarters. Hear rumors that A-24's and A-20's arrived by boat. I doubt it.

Clark Field 12 December 1941

Very quiet this morning. Low clouds and light rain. No fun living in the open. Talley and I went to enlisted man's barracks 1/3 mile away for a shower. Now deserted, — been bombed several times. Heard air raid warning, — ignored it because it was too cloudy for a raid. Heard second warning as I finished dressing. Went outside and saw nine bombers in a "V" formation. Ran for cover, — ran like we had never run before. Finally had to drop to the ground when the bombers got too close. We hugged the ground. Bombs, dropped in train, straddled us. Just lucky. Ground sure shook, — so did I.

Got up an moved farther away. Then nine more bombers came over. Clark is right on the edge of a mountain range. The bombers whipped around the mountains, just under the clouds, and were on us before we could do anything. We hit the ground again.

Rather nerve-racking to lie in the open and wait for bombs to hit. They get closer and closer. The ground started to shake and the explosions hurt our ears. When this attack had passed, we saw nine others off to the side.

Walked back to HQ. through tank area. Noticed that the bombs hit in this area. One bomb hit a gun emplacement, — killed everyone. Saw other wounded men being carried away.

Bomb hit a B-17 on the field. They seem to know when we have anything on the field.

Back in Hq. area found a bomb had hit 50 feet from my bunk. I am moving out. They know this is Hq.

Japs strafed when they came over. AA got a couple of ships. We had no pursuit up.

Ordnance setting off duds now. They give no warning — just the explosion. When one goes off nearby, everyone hits the dirt. Gets a little nerve-racking.

Japs now have an air base in the Northern part of Luzon.

Our bunch is getting administrative jobs since all the planes are burned. We're doing the jobs the pursuit outfit was doing here. They moved into the hills.

Shrapnel sure is mean looking, — jagged edges and sharp as a knife. Hope I get to finish this diary.

Clark Field 13 December 1941

Yesterday we moved to an open field which has very high grass. Of course, last night it rained. No raincoat. Gets kind of wet with just one blanket over you. Water collects in pools on your cot.

Awakened this morning by planes. Directly overhead were Jap dive bombers with fixed landing gears. Looked exactly like a P-26. They sure were low. We ran to a trench.

Some of these dive bombers strafed a B-8 being towed across the field. The two officers in the B-18, Heiss and Timlin, left the plane and started running. Bullets kicked up the dirt all around Timlin, but he wasn't hit. His lucky day.

When raid was over went to mess for breakfast. At 8:45 A.M. had food on my plate when siren went off. Set plate down figuring I'd be back shortly. At 11:20 I'm still in a foxhole. Japs have been over us continuously. Gosh, they have dropped a lot of bombs. Three of us are in a hole the size of a footlocker. The C. O. won't let any one of us out. He's afraid the Japs might see and bomb us. Now 11:30. About to starve. Last raid very close, — shook ground.

Now 11:50. Another raid, — no bombs. Heard bombs hit very far away. The Japs must have bases very close to run so many raids. So far they have met no resistance. That accounts for their boldness.

I don't think the people in the U. S. realize how bad the situation is. If they could only spend one day here, things might be different. Better watch out or this place will be another Crete.

Lots of recon planes flying overhead.

Another raid. Plenty of bombs. Guess they are trying to wear us out. Had one bath since I arrived in this place, — sure dirty.

Finally got to eat at 1:30, — a ham sandwich. They didn't get a chance to cook anything.

Don't see how this Squadron prepares such good food. Really marvelous. That helps morale. We need good food as we have to run such a long distance when air raids come. We carry a pistol, water bottle, web belt, gas mask, steel helmet and mess kit, — obstructions to fast running.

We are spending the day in an open field with a stream through it, — several miles from the field. Why spend a day on the field? We have nothing to do in the daytime, — we only work at night.

Clark Field 14 December 1941

Rained heavy all last night: water just poured through my blanket, — waterlogged this morning.

Took over a new job last night, — have the alert alarm crew. Stay up in the tower on the field from 6 - 12 P.M. When I see a plane or planes I must first determine whose it is and then, if it is going to come here. When the alarm is given you have to pick up three phones and warn everyone, — then turn on the siren, — then flash a red light around camp. By then the bombs are very close. You then run down a long flight of stairs, out of the hangar and into a trench. It is the most dangerous job on the field. Whipple and I have it. We take alternate shifts. Only had three sandwiches all day yesterday. Very quiet all day. Saw 27 planes heading for Manila. They didn't drop bombs on anything important. Never bomb ships in harbor. May expect to capture them. Have more than 57 transports in Manila Bay now.

Clark Field 15 December 1941

Have seen a lot of bombers this A.M. They just circle and go off someplace. Just had another raid, — hit hangar line again. Glad I'm not on duty in the tower now. — I have the other shift. Another raid, but don't know where the bombs dropped. Our food is getting cold again.

Too much rain! We have all moved to a house on Ft. Stotsenberg. It is connected with Clark. The Jap is hard pressed for targets, — he's bombing recon cars.

Clark Field 16 December 1941

Arose at 5:00 A.M. and went on duty. Missed breakfast and lunch, — if the bombs don't kill me, starvation will.

Good news! Just told we were returning to Ft. McKinley. Boy, am I glad!

Arrived at dark and told to get ready by 9:45 P.M. Going to fly down to Australia in a C-39. Things move fast in this army. Our A-24's are in Australia. Will assemble them and return immediately to P. I. Should be a nice trip.

Left Nichols Field in flight of one C-39 and two B-18's at 3:45 A.M. Arrived Del Monte, Mindanao 7:15 A.M. Very cold, rough and dreary trip. Members of our party are: Walker, West, Talley, Mangan, Townsend, Salvatore, Doan, Rogers, Lowery, Davies, Bachus, Rose, Briegg, Timlin, Heiss, Schmidt, Golusha, Summers, Hambraugh, Tubb, Strauss, Mahoney, Keenan and Hoffman.

Del Monte 17 December 1941

Very rugged country here. Much like Hawaii. One of the few fields not yet bombed by Japs. Spending day at Del Monte Club, 3 miles from field. Nice club, — tennis, swimming, golf, wonderful meals and cheap. Right in center of huge pineapple plantation, — free pineapple juice. Too bad we can't stay over, — we're pulling out for N. E. I. at 4:00 A.M. Sleeping at the club till then.

Del Monte 18 December 1941

Took off at 4:00 A.M. No seats in C-39. Be too bad if we were jumped by Jap pursuit. No guns on this plane. That's the reason for early morning take-off.

Flew directly over a Jap carrier. Glad it was still dark. Went to sleep on the cold bare floor. Bitterly cold, and me with only a raincoat. Must be getting hard. Never could have done this a few months ago.

Had to pass up Terakan, Borneo as it was closed in, and go on to Balikpapen. Arrived there almost out of gas. Poor country for forced landings, no emergency fields. A forced landing means the finish. Had to make plenty friendly signs on approaching for landing. The Dutch are plenty cautious and the field is barricaded. They are, also, very gracious and hospitable.

Balikpapen 19 December 1941

Left Balikpapen at 9:00 A.M. and headed out to sea. Heading for Makassar in Celebes, — also Dutch. Will spend the night there. Looks like we'll spend Christmas in Australia, — suits me fine. At least we won't have to dodge bombs there. Arrived at 3:00 P.M. Modern Dutch town, — one of the best in the Dutch East Indies. The airport is heavily fortified with pillboxes, trenches and barbed wire barricades.

Makassar, Celebes 20 December 1941

Left at dawn today. Arrived in Koepang, Timor at 10:30 A.M. stopping only to take on gas. Aussies moved into this Dutch airport last week. They have Lockheed Hudsons and lots of armored cars on the field. We are back in the air with a long over-water haul ahead, — four hours over water before we again sight any land. One of the B-18's is having trouble. It is throwing oil from the left engine and the oil pressure has dropped to forty pounds.

The B-18 finally made it. We all landed at Darwin Airport. Port Darwin is hardly a town at all. Morale very poor here. They have some Lockheed Hudsons here and an armed BC-1. They think it is hot stuff. I don't know why. What I can't figure out is why we never plan ahead and have things ready. Take the Philippines, — not enough pursuit to defend one airport. They knew this was coming and yet, only a few outmoded planes were there. Why not send first-class equipment instead of A-24's, P-40's and B-18's? They could have changed the story.

Port Darwin 23 December 1941

After a two-day layover we left Darwin at dawn this morning in an RAAF Sunderland. This is a four-engined flying boat somewhat similar to our clipper. This is a slow ship, — flew 9½ hours to make 1100 miles. We finally arrived and spent the night in Townsville after stopping twice along the way for gas.

Townsville, Australia. 24 December 1941

Left at 4:00 A.M. Will be in Brisbane by 1:00 P.M. Will get to spend Christmas in a fair-sized town.

Arrived in Brisbane, — 3rd largest city in Australia. Looks like an old-fashioned city. Not many cars. Not one good-looking gal in a thousand. Perhaps I'm setting my sights a little high.

We (27th Group) had a cocktail party Christmas night. Not many had dates. I did — blind. Wish I had been. Sat around and sang songs, — Christmas and others. Hotel very modern and cheap, — food excellent.

Saw a ship unloading practice bombs, — at least 20,000 of them. We need live bombs, and planes to fly them.

Things look bad for the Philippines. Can't see how our few planes can help. Just be a sacrifice. Hong Kong has fallen.

Am now Group Executive. Have another officer to help. Our hotel room is our office, — not so hot.

Most of the men are at the fields, putting our planes together. We sit here in the hotel, read and listen to the radio, — rather dull existence. Still seen few good-looking girls. They don't seem to grow down here.

Brisbane **1 January 1942**

Transferred to Amberly Field, 45 miles from town. Sure is hot here, — just like a blast furnace. We are checking trainees out in our planes, — boys just out of flying school. We are rushing them through course. Take them up and shoot one landing, — then put them in the front cockpit and ride around with them. No fun. No instruments in rear cockpit, — and it sure is hot.

Guess we'll pull out of here when we get everyone trained.

Amberly Field 7 January 1942

All our planes are now in commission and we are flying and checking the trainees off. Flew some practice dive bombing this morning, — will drop some live bombs after lunch. All work stops at 10:00 A.M. for tea. What a custom, — upsets our training program.

We sleep on little cots with no springs and mattresses made of burlap and filled with straw, — jolly living.

Well now that the Japs have taken Manila, I guess I lose all my possessions. Only have summer uniforms with me. No fun to lose all you own when you can't replace it. Wonder if it's worth it? Sleep in the open,— eat rotten food — work like h—.

Get nothing in return — can't get mail or send any out. Everyone except our families knows where we are. If we get back we'll be wrecks and the army won't want us. Guess my morale is a little low.

Still having strikes down here, with the Japs at their back door. What a place!

Amberly Field 18 January 1942

Talked to a fellow who just came down from Manila. Really sounds bad. What forces are left are now on Bataan Peninsula. We still hold that finger of land and Corregidor. Air Corps troops, which are without planes, are fighting with the Infantry. Too bad, — they'll be wasted. They have an air strip on Bataan and are doing some flying from it. I know what they're thinking, — that we'll soon be coming back with lots of planes to reinforce them. We can't do that, — we can't get up there, — and, if we could, we'd have no bases. Really feel sorry for them, — know they are helpless. We'll probably finish up somewhere in the NEI, — Java most likely.

I guess the Japs will soon take Malay Peninsula. Looks bad now. Been bombing Borneo and Celebes. Guess they'll go to work there soon, and also invade.

Heard a lot of B-17's and B-24's are flying in. Good news, we could use some medium bombers too. Sure are getting a lot of P-40's, — just boatloads pouring in. Wonder what's wrong with the P-38's and P-39's?

Amberly Field 23 January 1942

Went out on a search mission, out to sea about 50 miles. We had a sub scare, but didn't find him. Are continuing training and getting A-24's checked out, — some electrical parts were missing.

Brisbane 8 February 1942

Had dinner with Cecil Brown, the C. B. S. commentator. Quite an interesting and well-informed fellow, — really knows his war. He was on the Repulse when it was sunk, along with the Prince of Wales, from an air attack with torpedoes. Told us the fall of Singapore was coming soon.

Brisbane 14 February 1942

Left Brisbane today. Going up to Java with our A-24's, — loaded up with food and candy. Hope the Japs don't arrive first.

(To be continued in the next issue)

NEWS ITEMS

Request For Articles

The Editorial Board of **"The Air Power Historian"** invites the contribution of articles dealing with historical aspects of the development of Air Power for future publications. Consistent with the objectives of The Air Force Historical Foundation, articles of approximately 3,500 words or less, authentic by reason of the authors' experience or research, will be given careful consideration. Many of the airmen of the early years have had experiences which must yet be committed to the book of history. Younger and active airmen can also help record the human side of air power. Many professional historians have done research, the results of which could well appear in **"The Air Power Historian."** Bring forth your manuscripts so that your **Air Power Historian** can become airborne as the historical journal of American air power.

Memberships

Memberships in The Air Force Historical Foundation continue coming in from all echelons of the active Air Force as well as from retired personnel and interested civilians. Subscriptions to **"The Air Power Historian"** are growing from military and civilian Libraries, and even from several individuals abroad. As the membership rolls grow, so also will The Air Force Historical Foundation program, including its quarterly. Members are urged to continue the broadcasting of the word on our new Foundation to prospective eligible members.

U.S.A.F. Dictionary

The United States Air Force Dictionary has just been published (U. S. Government Printing Office, $3.00) and will be of interest to all members. Prepared by the staff of the Air University Research Studies Institute under the editorial direction of Dr. Woodford A. Heflin, some 16,500 technical and conceptual words were defined after five years of effort. This dictionary is a valuable research tool for the student of air power, and will be of interest to all airmen.

German Campaign In Poland

The Office of the Chief of Military History of the Department of the Army is currently preparing a series of studies on German military operations in World War II against forces other than those of the United States. These monographs will cover German operations in the Balkans, in Russia, in Finland, in Norway, and in France and the Low Countries. The first volume entitled, **The German Campaign In Poland** (1939), (U. S. Government Printing Office, 141 p., $2.00), is already available. These volumes should be useful for the student of air power examining in full detail the German lack of appreciation for the strategic potentialities of the air weapon system in World War II. An analysis of the German's air successes and shortcomings must necessarily provide the opposite side of the coin on the history of American air power in World War II.

General Vandenberg's Personal Papers

The Library of Congress has received the papers of General Hoyt S. Vandenberg (1899-1954), Air Force Chief of Staff during five critical years. The papers were given by Mrs. Vandenberg. When they are organized, they may be consulted only by special permission to be requested through the Chief of the Manuscript Division of the Library of Congress.

50-Year Air Force History

In November 1956, the U. S. Air Force Historical Division of the Air University will begin work on a 50-year history of the United States Air Force. This history will cover the period of 1907 to 1957. It will be published as the entire August 1957 issue of **Air Force Magazine**; then will be printed in book form.

Histories of Air Force Units

During the past year the USAF Historical Division has been at work on the preparation of about 70 outstanding Air Force unit histories. These have been prepared for the Air Force Academy, and are being used in the program to develop esprit de corps and a feeling of tradition among the Cadets of the Academy.

Historical Presentations

Worthy of note are two donations to the USAF Historical Division recently. Mrs. Millard F. Harmon of Montgomery, Alabama, has presented to the Historical Division a large number of the personal papers of the late General Millard F. Harmon. The great historical importance and significance of these papers has not yet been determined.

The other contribution came from Lt. Gen. Ira C. Eaker (Ret) who gave to the Air University two stereoptician viewers, together with some three-dimensional pictures taken by the Eighth Air Force and the Twentieth Bomber Command.

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HOW IS YOUR MEMBERSHIP STANDING?

Please look at the date on your Membership Certificate, and if your renewal date is at hand, the timely receipt of your check for $3.00 will be welcomed. REMEMBER it can be deducted from your Income Return. Also, please notify us as soon as possible of any change in address. This will tend to insure prompt delivery of your copy of "The Air Power Historian."

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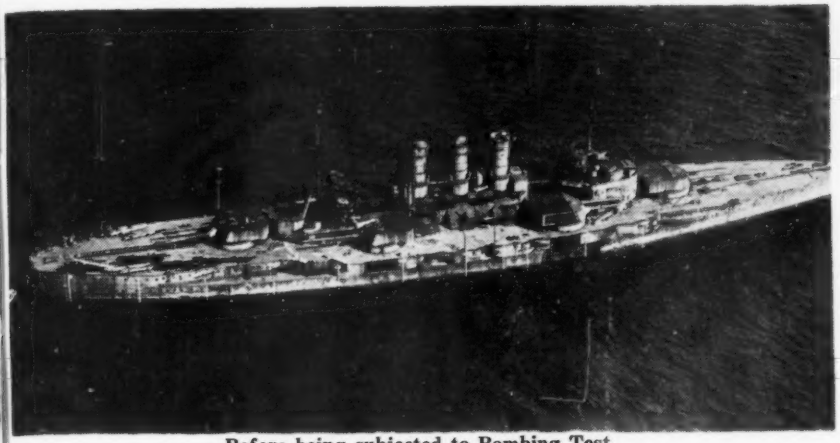
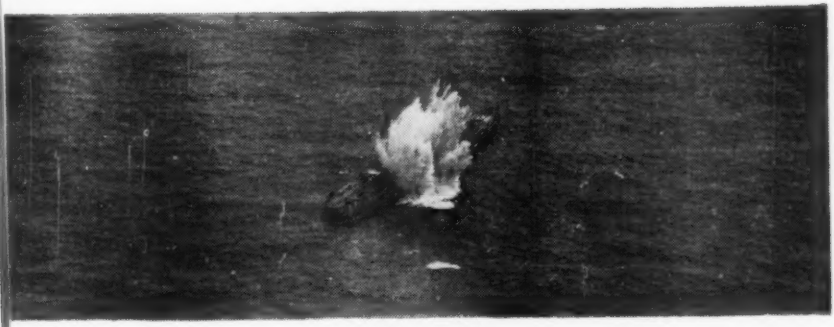
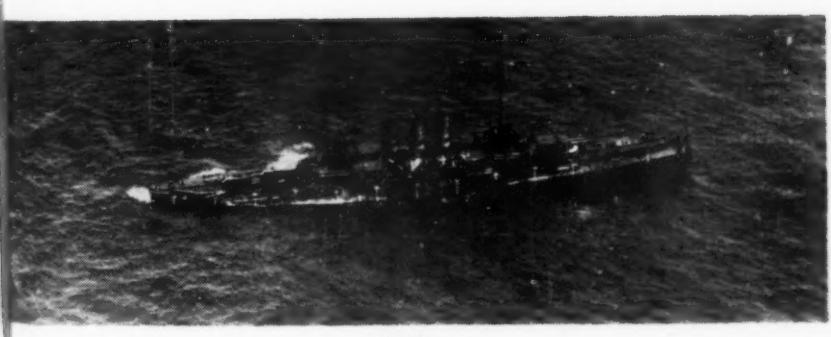
BOMBING TEST ON THE BATTLESHIP OSTFRIESLAND



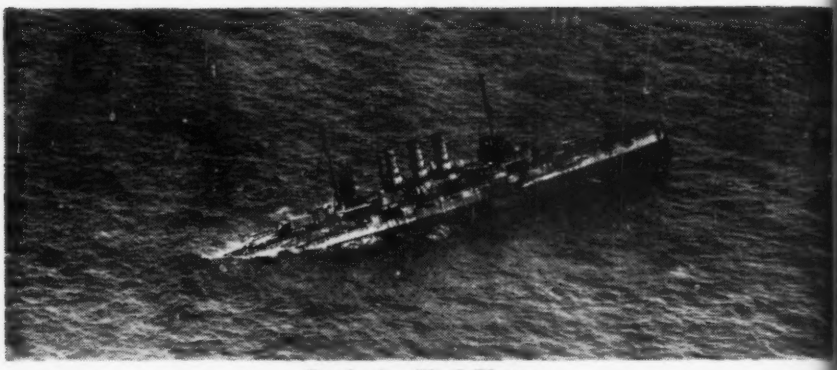
Before being subjected to Bombing Test



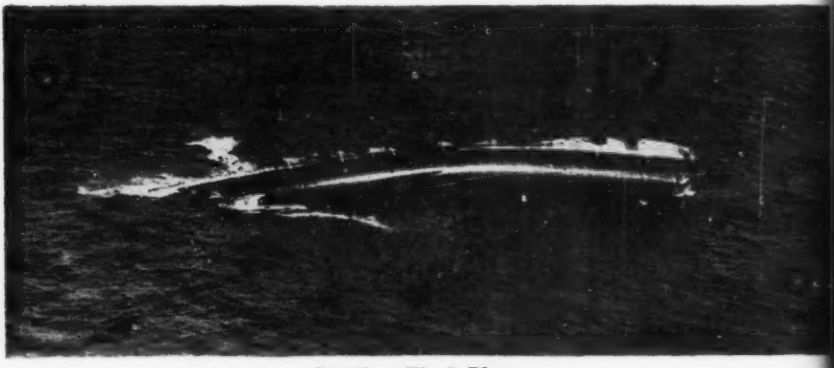
Bombing Attack



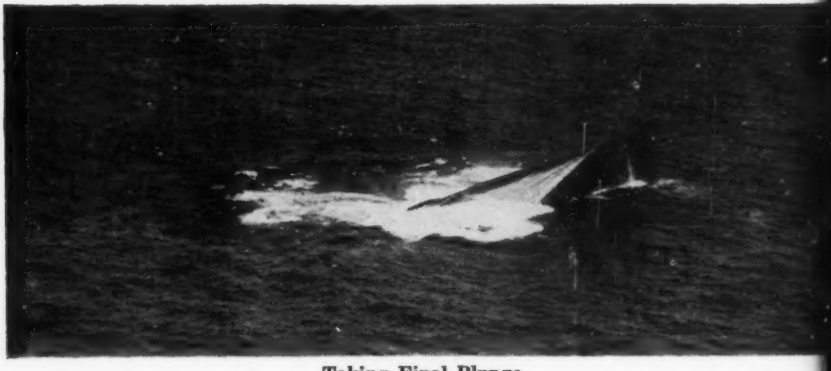
Sinking



Ready for Final Plunge



Starting Final Plunge



Taking Final Plunge